

Amendments to the Specification:

On page 4, after line 11, please add the following new paragraph:

FIG. 3 is a communication system operating in accordance with the present invention.

On page 7, after line 6, please replace the paragraph with the following amended paragraph:

In summary the present invention provides a system and method wherein a multi-carrier modulation communications system is used for providing channel estimation. The system and method include a transmitter 302 shown in FIG. 3 for inserting pilot symbols in a digital multi-carrier modulated radio frequency (RF) signal and a receiver 304 for receiving the pilot symbols in a multi-carrier modulation RF signal. The receiver 304 works to detect channel power gains from a plurality of designated pilot symbols and then calculates a speed parameter (S) and a multi-path parameter (M) for the channel receiving the pilot symbols. A channel model is next defined based upon the speed parameter and multi-path parameter value and a predefined set of pilot coefficients can then be chosen which substantially matches the channel model. The set of pilot coefficients is then used by the receiver 304 for optimizing pilot symbol interpolation.